

NOTES ON FLIES OF THE GENUS PELECORHYNCHUS  
(TABANIDÆ).

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(Plate ix.)

This paper contains a complete catalogue of references to the Australian species of *Pelecorhynchus*, the description of a new species and a key to those described. Thoracic markings are illustrated from such type specimens as are available for study.

Over one hundred specimens have been examined, representing all the known species, four of which, *P. distinctus*, Taylor, *P. lillyardi*, Taylor, *P. claripennis*, Ricardo, and *P. deuqueti*, sp. nov., are only known from the female.

*Pelecorhynchus personatus*, Walker (= *P. maculipennis*, Macquart), seems to have been unrecognised in Australian collections and confused with *P. nigripennis*, Ricardo, from which it is distinguished by doubtful characters. Future investigation will probably show these to be variations of the same species.

Key to the species of *Pelecorhynchus*.

1. Abdomen with tomentum covering the whole surface, not shining.....2.  
Abdomen bare, or almost bare, shining.....12.
2. Abdomen with transverse bands; longitudinal stripes are sometimes also present.....3.  
Abdomen with at least one longitudinal stripe and without transverse bands.....10.
3. The lighter coloured bands are entire, without interruptions in the centre, and are sometimes obscure.....4.  
The lighter coloured bands are interrupted, sometimes forming spots on each side of the dorsal stripe.....6.
4. Bands obscure, with tendencies to being interrupted on either side of centre, never centrally. Thorax with a pair of white stripes on anterior half. Eyes separate in ♂.....*igniculus*.  
Bands conspicuous.....5.
5. Spots on wings pale brown, pubescence on anterior part of sides of thorax blackish, hairs on base of cheeks yellow.....*personatus*.  
Spots on wings deep blackish brown and larger, pubescence on anterior part of sides of thorax and hairs on base of cheeks reddish.....*nigripennis*.
6. Eyes widely separated in ♂, abdomen with a pair of spots on each segment caused by one median and a pair of lateral stripes confining the interrupted lighter bands to more or less triangular areas.....*mirabilis* ♂.  
Eyes contiguous in ♂, abdomen with conspicuous bands interrupted in the centre.....7.
7. A white stripe on the black stripe of the thorax, wings spotted, abdomen without red hairs.....*albolineatus*.  
A white spot, sometimes absent, on the black stripe of the thorax.....8.
8. Abdomen with red hairs, wings spotted.....*crystaloides*.  
Abdomen without red hairs, wings not spotted.....9.

9. The white spot on the thorax conspicuous, the black centre stripe of scutellum not extending on to thorax.....*montanus*.  
The white spot on thorax obscure or absent, the black stripe of scutellum extends on to thorax.....*montanus* var. *a*.
10. Abdominal median stripe interrupted at posterior margin of segments, not reaching apex; a pair of lateral stripes more or less complete.....*mirabilis* ?.  
Abdominal stripe entire, not interrupted, sometimes not reaching apex of abdomen.....11.
11. Thorax yellow, with three broad black stripes, abdomen with one median black stripe.....*distinctus*.  
Thorax black, with broad reddish yellow stripe occupying half its width; abdomen with one median and two lateral black stripes.....*fulvus* ?.
12. Abdomen twice as long as wide, sides parallel; black species with partly yellow antennae; a median broad grey stripe on thorax; basal segment of abdomen with a little grey tomentum.....*tillyardi*.  
Abdomen not much longer than wide, sides never parallel, generally conical... 13.
13. Abdomen shining reddish brown; pubescence largely red.....*claripennis*.  
Abdomen shining black.....14.
14. Wings obscure fuscous, without markings; no red pubescence.....*fuscouiger*.  
Wings yellow.....15.
15. Wings with posterior border and some incomplete bands black. Thorax black with two broad, closely adjacent yellow stripes.....*deuqueti*, *sp. nov.*  
Wings with one sub-apical blotch black; thorax with one broad reddish yellow stripe .....*fulvus* ♂.

PELECORHYNCHUS IGNICULUS, *Hardy*.

(Pl. ix., fig. 1.)

*Pelecorhynchus igniculus*, Hardy, Proc. Roy. Soc. Tas., 1917 (1918), p. 64.

*Types*.—Holotype and allotype in the Australian Museum.

PELECORHYNCHUS ALBOLINEATUS, *Hardy*.

(Pl. ix., fig. 4.)

*Pelecorhynchus albolineatus*, Hardy, Proc. Roy. Soc. Tas., 1917 (1918), p. 64.

*Types*.—Holotype, allotype and paratype (♀) in the Australian Museum.

PELECORHYNCHUS MONTANUS, *Hardy*.

(Pl. ix., figs. 2, 3.)

*Pelecorhynchus cristalloides* var. *montanus*, Hardy, Proc. Roy. Soc. Tas., 1916 (1917), p. 269.

*Pelecorhynchus montanus*, Hardy, *Loc. cit.*, 1917 (1918), p. 65.

*Obs.*—Specimens from Cradle Mountain differ from those from Mount Wellington in the markings of the thorax, the colour of some of the hairs, and also in other small details. The Cradle Mountain specimens have been designated *P. montanus* var. *a.* by me (*Loc. cit.*, 1918), but it is probable that they will be found to merge into the typical form when material is available from other localities for comparison.

*Types.*—The holotype and allotype of the typical form and also the holotype and allotype of the var. *a.* are in the Australian Museum.

PELECORHYNCHUS ERISTALOIDES, *Walker.*

*Silvius ? eristaloides*, Walker, List Dipt. Brit. Mus., i., 1848, p. 193.

*Dasybasis eristaloides*, Walker, *Op. cit.*, v. suppl. 1, 1854, p. 267.

*Pelecorhynchus eristaloides*, Ricardo, Ann. Mag. Nat. Hist. (7), v., 1900, p. 102; *Loc. cit.* (8), v., 1910, p. 405. *Id.*, White, Proc. Roy. Soc. Tas., 1915 (1916), p. 22. *Id.*, Hardy, Proc. Roy. Soc. Tas., 1915 (1916), p. 60; *Loc. cit.*, 1916, p. 269; *Loc. cit.*, 1917 (1918), p. 63 (in key). *Id.*, Ricardo, Ann. Mag. Nat. Hist. (8), xix., 1917, p. 211.

*Loc.*—New South Wales; one male in the Macleay Museum has the white spot on the thorax obsolete.

PELECORHYNCHUS PERSONATUS, *Walker.*

*Silvius ? personatus*, Walker, List Dipt. Brit. Mus., i., 1848, p. 192.

*Dasybasis personatus*, Walker, *Op. cit.*, v. suppl. 1, 1854, p. 267.

*Pelecorhynchus maculipennis*, Macquart, Dipt. Exot., suppl. 4, 1850, p. 23, pl. ii., fig. 6. *Id.*, Ricardo, Ann. Mag. Nat. Hist. (8), v., 1910, p. 403. *Id.*, Taylor, Proc. Linn. Soc. N.S.Wales, xlii., 1917, p. 513.

*Ctenomyga maculipennis*, Thomson, Eugenes Resa, Dipt. 1868, p. 450, pl. ix., fig. 2.

*Pelecorhynchus ornatus*, Schiner, Novara Reise, Dipt. 1868, p. 98. *Id.*, Williston, Kansas Univ. Quart., iii., 1895, p. 192.

*Pelecorhynchus nigripennis*, Taylor, Proc. Linn. Soc. N.S.Wales, xlv., 1919, p. 41. *Id.*, Taylor, Rec. Austr. Mus., xii., 5, 1918, p. 55 (part). —(not *P. nigripennis*, Ricardo).

*Synonymy.*—Miss Ricardo definitely states that Walker's type of *Silvius personatus* is identical with Macquart's genotype *P. maculipennis*, but although Walker's name has priority she has used Macquart's name in preference, and in this has been followed by all subsequent entomologists.

The species has not been satisfactorily recognised in Australian collections but undoubtedly Sydney specimens and Stradbroke Island specimens belong here. A specimen from the latter locality is in the

Australian Museum, and was recorded by Mr. F. H. Taylor (*Loc. cit.*, 1918) under the name *P. nigripennis*; but his Ebor specimen mentioned first in the same reference is correctly named. Other specimens identified by Mr. Taylor from Stradbroke Island, in the Queensland Museum, under the name *P. maculipennis* (1917), which he changed later to *P. nigripennis* (1919), were probably correctly named in the first place. On this account these references are placed in the synonymy above.

*Status.*—The difference between *P. personatus* and *P. nigripennis*, if indeed they are distinct, is small; fresh specimens show that the abdomen has bands equally dark in both species instead of being reddish brown and blackish brown respectively. There is an extra distinction, however, in the pubescence under the head and the thorax which is pale yellow in *P. personatus* and white with tufts of red in *P. nigripennis*. The thorax has far less red pubescence dorsally in the former than in the latter.

*Variations.*—In the Macleay Museum three males and five females from Ropes Creek, Burradoo and the Blue Mountains, New South Wales, are referable here. They all, however, show a marked tendency towards *P. nigripennis* in the wing markings, but all agree with *P. personatus* in the comparative scantiness of the red pubescence, and the pale yellow hair ventrally. The spots on the wings vary from seven to ten in number.

*Loc.*—The specimen upon which this identification is based is in the Australian Museum; it was taken by the writer at La Perouse, Botany Bay, New South Wales, on the 6th October, 1918, and is a male; a second specimen, a female, from the same locality, having the spots of the wing approaching those of *P. nigripennis*, was taken on the 12th October, 1919. A further specimen, a female, was taken at Blackheath, New South Wales, on the 18th November, 1919.

So far as is known it appears that this form occurs in warmer climates, whilst the next species is from mountain and colder areas, including Tasmania.

#### PELECORHYNCHUS NIGRIPENNIS, Ricardo.

*Pelecorhynchus maculipennis*, Ricardo, Ann. Mag. Nat. Hist. (7), v., 1900, p. 102—(not *P. maculipennis*, Macquart).

*Pelecorhynchus nigripennis*, Ricardo, Ann. Mag. Nat. Hist. (8), v., 1910, p. 405. *Id.*, White, Proc. Roy. Soc. Tas., 1915 (1916), p. 22. *Id.*, Hardy, Proc. Roy. Soc. Tas., 1915 (1916), p. 60; *Loc. cit.*, 1917 (1918), p. 63 (in key). *Id.*, Taylor, Rec. Austr. Mus., xii., 5, 1918, p. 55.

*Status.*—For observations upon the status of this species see the remarks under *P. personatus*.

#### PELECORHYNCHUS MIRABILIS, Taylor.

*Pelecorhynchus mirabilis*, Taylor, Proc. Linn. Soc. N.S.Wales, xlii., 1917, p. 513.

*Obs.*—This is not represented in the Australian Museum. The sexes have similar thoracic markings and remarkably dissimilar abdominal markings; the character of the separated eyes of the male is shared with *P. igniculus* and *P. fulvus*. Dr. E. W. Ferguson has kindly lent me two males and two females for the inclusion of their characters in the key.

PELECORHYNCHUS TILLYARDI, *Taylor*.

(Pl. ix., fig. 6.)

*Pelecorhynchus tillyardi*, Taylor, Rec. Austr. Mus., xii., 5, 1918, p. 54.

*Obs.*—The shape of the abdomen in the type specimen is quite different to that of any described species.

*Type.*—The unique female holotype is in the Australian Museum.

PELECORHYNCHUS CLARIPENNIS, *Ricardo*.

*Pelecorhynchus claripennis*, Ricardo, Ann. Mag. Nat. Hist. (8), v., 1910, p. 408.

*Obs.*—This species is remarkably closely allied to *P. fusconiger*, Walker. It has similar thoracic markings, can only be distinguished by the reddish instead of black abdomen, and by the abundant red pubescence. Two females were kindly lent to me by Dr. E. W. Ferguson for inclusion of their characters in the key; two females are in the Macleay Museum.

PELECORHYNCHUS FUSCONIGER, *Walker*.

*Silvius ? fusconiger*, Walker, List Dipt. Brit. Mus., i. 1848, p. 192.

*Dasybasis fusconiger*, Walker, *Op. cit.*, v. suppl. 1, 1854, p. 267.

*Pelecorhynchus fusconiger*, Ricardo, Ann. Mag. Nat. Hist. (7), v., 1900, p. 102; *Loc. cit.* (8), v., 1910, p. 407. *Id.*, Hardy, Proc. Roy. Soc. Tas., 1915 (1916), p. 60; *Loc. cit.*, 1916 (1917), p. 270; *Loc. cit.*, 1917 (1918), p. 63 (in key). *Id.*, Taylor, Proc. Linn. Soc. N.S. Wales, xlii., 1917, p. 513. *Id.*, Taylor, Rec. Austr. Mus. 1918, xii. 5, p. 55.

*Variation.*—A specimen taken at Blackheath, New South Wales, on the 13th November, 1919, has thick red pubescence below and behind the head; on the thorax there are some conspicuous red hairs above the wings; some of the abdominal segments have red hairs laterally. This variety approaches *P. claripennis*, Ric., and suggests that that species is only a variation of *P. fusconiger*, Walk.

*Loc.*—New South Wales: La Perouse, one male, 12th October, 1919, also eight males and seven females, 19th October, 1919; Blackheath, 10 males and nine females, from 12th to 24th November, 1919.

PELECORHYNCHUS DISTINCTUS, *Taylor*.

(Pl. ix., fig. 5.)

*Pelecorhynchus distinctus*, Taylor, Rec. Anstr. Mus., xii., 1918, p. 53.*Type*.—The holotype and paratype, both females, are in the Australian Museum. The male is unknown.PELECORHYNCHUS FULVUS, *Ricardo*.*Pelecorhynchus fulvus*, Ricardo, Ann. Mag. Nat. Hist. (8), v., 1910, p. 406. *Id.*, Taylor, Proc. Linn. Soc. N.S. Wales, xlv., 1919, p. 41.*Loc*.—Sutherland, New South Wales, one female, taken by Mr. C. F. Deuquet. Dr. E. W. Ferguson has kindly lent me a male specimen for the determination of characters suitable for the key.PELECORHYNCHUS DEUQUETI, *sp. nov.*

(Pl. ix., fig. 7.)

♀. A yellow and black species; the abdomen is bare, shining, and black; the wings are yellow with their posterior borders and spots black. The tomentum of the head is ashy grey; the pubescence on the face and cheeks is black mixed with a little white, whilst that of the front and behind the head is black; the beard is whitish. The proboscis is black, the palpi reddish yellow, and the antennæ reddish yellow with a fuscous stain on their basal segments. Thorax with a thin black median stripe which widens posteriorly and extends on to the scutellum. Two very broad yellowish stripes are on each side of the median line. Within each of these there is a brighter stripe running the full length of the thorax and touching the apex of the transverse suture. There is an irregular black lateral stripe, but a small area above the roots of the wing is yellowish; the remainder of the thorax and the sides of the scutellum are greyish. The fringe of the scutellum is black on the black part and whitish on the grey part. The ventral part of the thorax and the coxæ are grey with white pubescence, the remainder of the legs are yellow. Abdomen shining black with pubescence yellow. Wings reddish yellow with a black posterior border; a black posterior band extends across each at the base of the discal cell, but does not reach the costa; another band at the apex of the discal cell is interrupted and leaves an isolated spot at about the middle of the radial vein; a third band at the cubital fork is curved and, with the posterior marginal band, encloses a yellow area. The markings are not quite uniform in each wing but all the bands are confluent with the posterior border.

Length, 14 mm.; width across the wings about 35 mm.

This species is named after the collector of the holotype, Mr. C. F. Deuquet.

*Locs.*—Blackheath, New South Wales, December, 1918; one female, the holotype, in the Australian Museum. In the Macleay Museum there is a female paratype, from the Blue Mountains, New South Wales, also a female from Mount Kosciusko, New South Wales, which is referable here, but has an entirely black thorax and is slighter in build. Both specimens have the band across the wing at the base of the discoidal cell interrupted before reaching the posterior border.



